

CC Docket No. 94-102 – January 2004 E911 Interim Report

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Date: January 15, 2004

To: Marlene H. Dortch, Secretary
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By Electronic Submission:

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**TIER III CARRIER INTERIM REPORT
AS OF JANUARY 2004
CC Docket No. 94-102**

Key Communications, L.L.C. ("Key") hereby submits its E911 Interim Report, pursuant to *Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems, Phase II Compliance Deadlines for Non-Nationwide CMRS Carriers*, CC Docket No. 94-102, FCC 02-210, released July 26, 2002 (*Non-Nationwide Carrier E911 Order*), *Public Notice*, DA 03-2113, released June 30, 2003, and *Order to Stay*, FCC 03-241, released October 10, 2003.

Carrier Identifying Information:

Carrier Name: Key Communications, L.L.C. – FRN 0005 4134 63

E911 Compliance Officer: James Williams
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E911 Implementation Information:

Key is a small wireless carrier serving only rural or other less-densely populated areas. Key hereby reports as follows:

- ☐ Key has received two Phase I requests and two Phase II requests. Key has obtained and installed all of the network equipment and software necessary to meet the Phase I requests, has installed landlines between the switch and the requesting PSAPs for Phase I deployment, and is compliant with both Phase I requests. Key did not encounter any problems in meeting the PSAPs' Phase I requests.
- ☐ Key had elected to employ a handset-based solution compatible with the GSM technology of Key's PCS network. However, as discussed below, due to the failure of handset manufacturers to meet their earlier promises regarding handset availability, that position is evolving.
- ☐ Key has installed all of the necessary network equipment for Phase I E911 deployment. Key has experienced and anticipates it will continue to experience significant problems with its Phase II E911 deployment. Specifically, Key elected to use a handset-based solution for its E911 deployment, because it was the only attainable solution, either technically or financially. However, the vendor of Key's GSM handsets, Nokia, advised Key in July of 2003, that there would be no Phase II-compliant GSM handsets forthcoming, now or in the foreseeable future.

Key is unable to switch to a traditional network-based solution because, as previously reported, it is technically impossible. For a network-based solution to function, a handset must be located within the reliable service area of at least three cell sites simultaneously (or

two cell sites, if angle of arrival techniques (“AOA”) are used), in order to triangulate the position of the handset. Key operates only in less densely populated areas where the cell sites are spread far apart and there is little overlap between two cells and even less overlap among three cells. Only a minor portion of Key’s service area is potentially susceptible to triangulation techniques; the bulk of the service area is not susceptible to triangulation and Key could never meet the accuracy levels set forth in Section 20.18 of the Commission’s rules, *i.e.*, accuracy within 300 meters 95% of the time on a system-wide basis.

However, Key was recently advised that Nortel is developing a hybrid network/handset-based technology for Phase II E911, which Key tentatively plans to implement. This technology involves a two-step process for full Phase II deployment. The first step requires implementation of a network-based solution that enables greater ALI capability on the part of the carrier and the PSAP without resort to any special handsets. This is only an interim solution and is not fully Phase II compliant. Installation of this network-based technology would provide a level of accuracy better than Phase I, but short of Phase II. The second step requires the distribution and use of special “assisted-GPS” (“A-GPS”) handsets, which are currently not available. The addition of these A-GPS handsets would make this hybrid solution fully Phase II compliant. Nortel has scheduled tests with A-GPS GSM handsets for the first quarter of 2004. Nortel suggests that such A-GPS handsets could begin to be commercially available to small Tier III carriers by the fourth quarter of 2004; however, whether such availability occurs in that time frame is beyond Key’s control.

Key has informed the requesting PSAPs of its tentative plan to implement this hybrid Phase II E911 solution, assuming that the initial tests prove out, and of the specifics of the two-step implementation process.¹ Both involved PSAPs are currently satisfied with the proposed implementation schedule. Notably, neither PSAP has implemented Phase II E911 yet. The price quote Key received from Nortel for this hybrid solution is exceedingly high, but Key is currently seeking funding to allow it to implement this solution. Specifically, Key is discussing the possibility of vendor financing with Nortel, and Key is discussing with the requesting PSAPs the possibility of obtaining government cost-recovery funding to cover all or a portion of the required expenditures.

- ☐ Key attempted to obtain ALI-capable GSM handsets prior to the October 1, 2002 deadline. After the handset vendors repeatedly delayed development of such units, they finally admitted no such handsets were going to be developed.
- ☐ For the reasons discussed above, Key does not anticipate that Phase II service will be available in its network in the near future, but anticipates that it could begin to become available, in part, by the last quarter of 2004. Key anticipates that full Phase II service would be available in its network by December 2006. Key has a request pending with the Commission for a waiver of the Phase II requirements in the meantime.
- ☐ With regard to meeting the ultimate implementation date of December 31, 2005, see above.

¹ It is not financially prudent to invest in the network-based portion of this “hybrid” solution without first knowing whether the handset-based portion will work, because if it fails there would be no capital available to purchase any alternative technology.